

ABSTRACT OF THE DISCLOSURE

A refrigeration cycle apparatus has a compressor, a radiator, an expansion device, an evaporator, and a variable-speed mechanism. When a rotary shaft of the compressor is rotated, the compressor increases the pressure of refrigerant. The radiator cools refrigerant the pressure of which has been increased by the compressor. The expansion device generates power using the decompression and expansion and transmits the power to the rotary shaft. The evaporator heats refrigerant that has been decompressed and expanded by the expansion device. The variable-speed mechanism is capable of changing the discharge rate of the expansion device per rotation of the rotary shaft. This permits the expansion device to increase the amount of recovered power.